Beach 31 Project

Response to Questions from Mr. Maue

Good afternoon, thank you for circling back on this.

I had expressed concern that the white roof may not stay as clean as the manufacturer claims, based on roof I've seen and discussed with architects. This include the Indianapolis Airport, though last I heard the manufacturer blames that on jet fuelSince it's a pitched roof and will be visible, they probably should take this into consideration when selecting the color.

Response. Two factors that are typical to the appearance in membrane applications include the specification characteristics of the product used, and to a lesser degree, the surrounding environmental conditions. Where an architectural membrane is in place (like what is being proposed for Beach 31), a top coat (acrylic, pvfd) provides the surface layer for any dirt sits, and is washed away by mother nature.

To the comment on the Indy airport. There are dozens of such structures at most major airports, including long term examples in Boston, Atlanta, Los Angeles, and Dallas, who have similar air quality and contaminants. Interestingly, none of those building use a white membrane for the tension structure category.

On the tensile category, including Denver, Atlanta, and Indy, white is the primary choice. With tensile, aesthetics with the architectural flare encompassing node points, patterning, and radius of curvature, the probability of a build up of dirt is increased.

The concern over the roof color choice is certainly reasonable, and in the case of the Beach 31 project, we recommend a PVC membrane color choice that could be tan, a light grey, or other, more responsive to the long term performance.

In considering the life cycle of a structure, and the maintenance. A small number of owners report a power wash to the building, every 5 years. In most cases, the vertical sides of the building, not the roof. A small number, also say they have never power washed the exterior.

Also, I commented that I don't know how they can pass the energy code, even for a semi-conditioned space. A 'fabric' can be good with respect to reflectance and relatively tight seal, but there are also code requirements for R-value.

Response. The Beach 31 project includes certified insulation coverage for the roof, sidewalls, and gables, per code. It involves a separate application not related to the

exterior pvc membrane, and is installed within the cavity between the upper and lower truss steel frame. To the tension structure category, it has similar performance to the industry know systems that include simple saver, pro liner, etc.

I'm warming to the possibility of allowing a fabric roof for this particular use/structure/location. But it was unclear whether the intent was to use that same material on the gable ends. This material would not be acceptable on the vertical surfaces in my opinion. (This also seemed to be the general consensus among the rest of the APC.)

Response. The PVC application is for the roof only. All of the verticals, sidewalls, and gable ends can utilize steel sidewalls, dense wall sheathing, and other architectural applications. To date, we have focused on the primary entrance side of the structure for such upgrades, while staying budget friendly.

That's what I recall from this particular discussion.

Have a GREAT weekend!

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